Keratosis of the Lip—8 cases. These are potential carcinomata and should be treated as very superficial malignancy. Radium has proven very satisfactory.

Lupus Erythematosus—10 cases. In the chronic discoid type of this disease radium is often of considerable benefit.

Lupus Vulgaris—5 cases. No other form of therapy surpasses radium in treating even extensive and long standing cases of this disease.

Vascular Nevus—19 cases. In the raised type a good cosmetic result is the rule, but in the flat port wine stain type a slight paling is all that can be hoped for.

Verrucæ—5 cases. In certain regions radium is the treatment of choice. This applies particularly to those near the finger nail and to verruca plantaris between the toes.

Grave's Disease—11 cases. The result is earlier and more marked than in any other form of therapy. Whether the effect is permanent or not cannot yet be stated. Radium is not suitable in treating toxic adenomas.

Incipient Cataracts—60 cases. A large percentage of these have been given improved vision. Radium is useless in mature cataracts.

Miscellaneous—56 cases. This includes the cases which do not fall into any of the above groups, and in which the treatment with radium has been more or less experimental.

Thus 420 cases of various types have been treated during the year and though many of them are of the most hopeless in the realm of medicine, the results have been encouraging. New fields are being opened to radiotherapy by changing methods and improvements in technique are leading to better results. The use of the emanation instead of radium element has proven eminently satisfactory. The advantages far outweigh the few disadvantages and make the use of emanation preferable.

Hotels as Doctors of Nutrition—Press dispatches are making much of the entrance of hotels, cafeterias, restaurants and similar places into the practice of medicine. The "scientific diet service" is now a feature of a number of prominent hotels. All one is required to do is to look down the special menu, pick out his own diagnosis and, presto, the proper diet for that disease is available! Some of the Eastern cities also now have "healtheterias," devoting themselves exclusively to the "scientific feeding of the undernourished" and those suffering from chronic diseases. Many of them are paying particular attention to the undernutrition of children as a specialty. Some of them advertise their expert medical advice in electric-light signs at night.

With the statistics by "food specialists" showing that the majority of our people, and particularly of our children, are undernourished and suffering from various grades of starvation, these scientific (?) nutrition institutes ought to do a flourishing business during the ephemeral existence of this particular and exceedingly foolish fad.

STRICTURE OF THE URETHRA IN WOMEN *

By WILLIAM E. STEVENS, M. D., San Francisco.
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Stricture of the urethra in women is a condition which is very often overlooked, although it may be responsible for marked functional and organic disturbances in the genito-urinary tract of this sex. While the kidneys, ureters and bladder are usually carefully investigated in the presence of symptoms referable to the genito-urinary tract, examination of the urethra is frequently omitted, and consequently pathological lesions of this important organ are neglected.

This is probably due to the generally accepted idea that strictures of the female urethra are very uncommon. While this is true so far as the lumen of the canal is concerned, strictures at the meatus on the other hand are frequently encountered.

Dilatation of the urethra has long been an empirical treatment for urinary disturbances and every urologist has noticed the marked symptomatic improvement that sometimes follows the single introduction of a cystoscope or ureteral catheter. Impressed by the frequency with which this occurred, I decided to examine the urethra more thoroughly, and consequently, in addition to endoscopy, have made it a practice to calibrate this organ in all women, as well as in men, who complain of urinary symptoms. Including strictures of the meatus, which are much more numerous than those in the lumen of the canal, the results were most interesting, the number far exceeding expectations.

In reviewing the literature, I found that many years ago, Skene, in his interesting book on "Diseases of the Bladder and Urethra in Women" said, "the form of stricture that will most often come under your consideration will be a contraction of the meatus urinarius, produced in many cases by too liberal use of caustics in the treatment of abnormal growths at the lower end of the urethra, or from vulvitis." The vulvitis to which he refers was probably gonorrheal in origin for, as we now know, the urethra is involved in almost all cases of this infection.

A few years later at the forty-first annual meeting of the American Medical Association, Van de Warker, in calling attention to strictures of the urethra in women said, "the form of stricture I have most frequently met with, and one that produces the most acute symptoms, is the annular stricture of the meatus." With the exception of the latter's paper in 1890, I have been able to find but one important contribution to this subject, that of Maurice Vilfroys in 1914, since it was first mentioned by Lisfranc about one hundred years ago.

Heinrichsdorff recently reported a case in which death occurred, following catheterization of the bladder in a woman sixty-five years of age who had complained of involuntary dribbling of urine

* Read before the Fiftieth Annual Meeting of the Medical Society of the State of California, Coronado, May, 1921.

and difficult urination for one year. Necropsy revealed that the urethra in its proximal third was so constricted that only small sounds could be passed. The wall of the neck of the bladder was hard and much thickened. The bladder itself was extremely large, the wall was stiff, and in places a centimeter thick. In some places the bladder wall was thin and protruded outward. Both ureters were thick as a finger, tortuous and filled with a purulent fluid. The kidneys were enlarged and very soft, studded with small abscesses, very little normal tissue remaining. The condition was thus due to stenosis of the upper urethra, which had entailed retention and stagnation of urine and dilatation of the superior urinary passages, followed by their infection and a suppurative process throughout the kidneys.

Herman, of London, following the examination of fifty-five women without urinary symptoms, concluded that the normal size of the female urethra is F 29, a little less than ten millimeters. Van de Warker expressed the opinion that a urethra from F 23 to F 28 should be considered normal. Examination of 114 patients at the Stanford Women's Clinic disclosed the fact that only 18 or about 16 per cent had never suffered from symptoms referable to the urinary tract. Following urethral calibration in these eighteen cases, I found the average size of their urethra to be F 26 or a little less than nine millimeters. My opinion is that a urethra below this size is usually abnormal, and the response to treatment has justified this conclusion. In the series of pathological cases upon which my observations have been based, the average size of the stricture was F 22. The smallest would not admit a filiform.

The youngest patient was three, and the oldest sixty-nine years of age, the average being forty-four years.

My patients have been divided into three classes, prostitutes confined in a special ward at the San Francisco County Hospital, clinic patients seen at the Stanford Women's Clinic, Mount Zion Hospital Clinic and San Francisco Polyclinic and private patients. As practically all of the first class had at some time suffered from gonorrhea, the significance of this infection as a factor in the etiology of strictures could be determined. In fact, the meatal strictures occurring in prostitutes exceeded that found in clinic patients by eleven per cent, and in private patients by twenty per cent. It is, therefore, apparent that Neisser infection is the most important etiological factor in strictures occurring at or just within the meatus. Other causes of obstruction at this location are congenital malformation, contraction following the traumatism resulting from childbirth, ulceration, caustic applications and operative procedures. I have not been able to satisfy myself that focal infections, as suggested by Hunner, have any bearing upon the etiology of this condition. Strictures of the lumen of the canal, which are usually due to traumatism associated with childbirth, are as infrequent in prostitutes as in other classes of patients. This is to be expected, as the female urethra, with the exception of its few ducts and glands, is, like the membranous portion of the male urethra, lined with squamous epithelium, and consequently resistant to all forms of infection.

COMPLICATIONS

Hunner found urethral stricture in eighty-five per cent of his patients suffering from stricture of the ureter. From the fact that most of our cases cleared up under local treatment of the urethra, the conclusion is drawn that the majority of urethral strictures on the other hand, are not complicated by stricture of the ureter. A note should be made, however, of the fact that two of our youngest patients, girls eight years of age, suffered from both ureteral and urethral strictures.

The most frequent complications are urethritis and trigonitis, and one or both of these conditions were present in eighty-three per cent of the cases in this series. The fact has long been recognized that stricture or obstruction from any cause predisposes to infection higher up in the urinary tract. Pus was found in eighty-five per cent of the catheterized specimens of bladder urine in these cases.

SYMPTOMS

As the female bladder is especially sensitive to reflex influences, marked subjective symptoms are often produced by comparatively slight obstructions. It must be remembered, however, that these symptoms may be partly due to the accompanying urethritis or trigonitis.

Frequent urination is the most common symptom of which these patients complain. It was seldom absent, occurring in over eighty-five per cent of our clinic and private cases. Subjective symptomatology was not taken into consideration in the patients confined in the detention ward of the San Francisco Hospital, as many of these deny disability, hoping to be released as soon as possible.

Next to frequent urination, these patients most often complain of pain, which is referred to the urethral or bladder regions. This symptom occurred in sixty-four per cent of our cases. Burning or smarting was present in twenty-six per cent, urgency in five per cent, and difficulty, constant desire to urinate, partial incontinence, dribbling and retention of urine, were each present in two and a half per cent of our patients. Residual urine is seldom found except in the presence of very tight strictures.

DIAGNOSIS

The diagnosis of stricture is best made by means of the olive-tipped bougie. A urethrotome, or sound, is much less reliable, as strictures of the female urethra usually yield readily to slight pressure, and consequently higher readings result from use of the latter instruments.

TREATMENT

The majority of urethral strictures should be treated by means of gradual dilatation, absorption of the constricting exudate being best promoted by this procedure. In the presence of scar tissue, however, meatotomy, internal urethrotomy or external urethrotomy with resection of

this scar tissue is often indicated. Using the French scale of measurement, a straight sound of the same size as the stricture is introduced. The sounds are increased two numbers at each treatment until an F 30 passes without difficulty. Following the withdrawal of the sound a few cc. of one to three per cent silver nitrate solution are injected into the bladder and urethra. At first treatments are given twice a week, but the interval is gradually lengthened to once a month and then may be discontinued. Preceding dilatation the use of a local anæsthetic such as a ten per cent cocaine solution on a cotton-tipped applicator is sometimes advisable in nervous women.

The symptoms improve, as a rule, after two and disappear after five dilatations, recurrence being very unusual if treatment is not too abruptly discontinued.

The following brief case histories, two of stricture at the urethral meati, and the other of both the lumen of the canal and the meatus are typical of many which have come under my observation.

Case I.—Married woman, age fifty-two, housewife, nullipara, complains of frequent urination, that the urine escapes slowly and that dribbling is usually present. The symptoms began three months ago and are gradually increasing in severity. She denies Neisser infection and gives no history of previous genito-urinary symptoms. A catheterized specimen of bladder urine contains an occasional pus cell. The olive-tipped bougie encounters a stricture, F 20 in size, at the external urethral meatus. Following two treatments which consisted of dilatation with straight urethral sounds, followed by the instillation of one per cent silver nitrate solution the symptoms had markedly improved. The symptoms disappeared after the third treatment.

Case II.—Married woman, forty-five years of age, housewife, the mother of nine children, complains of burning in the urethra, worse at the beginning of urination, and nocturia. Her past history and family history are of no significance.

The present illness began shortly after her first confinement twenty-one years ago with burning, stabbing pain worse at the beginning of urination. She has had attacks of difficult urination, at which times the urine escaped drop by drop. The symptoms have been worse since her eighth confinement nine years ago. Ten months ago she suffered from retention of urine for three days. She was taken to the hospital, where a growth was removed from the meatus and the urethra dilated with sounds at intervals for one month. All symptoms except the burning sensation disappeared and she did not come to the clinic for further treatment as requested. Three days ago micturation again became difficult, the urine escaping in drops. She states that some relief was obtained in a few hours by the application of hot compresses to the vulva.

Examination disclosed a stricture just inside the meatus through which an F 12 glass catheter could be introduced with difficulty, and another stricture of slightly larger caliber in the posterior third of the urethra. Scar tissue resulting from childbirth was responsible for both strictures. Residual urine amounting to 60 cc. was present. Because of the nature of the obstruction, the small caliber of the strictures and the pain caused by instrumentation, meatotomy and internal urethrotomy were deemed advisable. All symptoms disappeared following these operations.

Case III.—Female child, three years of age, complains of frequent urination and pain in the region of the bladder of one month's duration.

A number five ureteral catheter was passed with difficulty because of a stricture at the external urethral meatus. The catheterized specimen of bladder urine contained a few pus cells. Culture showed non-hemolytic streptococci. The symptoms improved after the second and disappeared after the fourth dilatation of the urethra.

CONCLUSIONS

Stricture of the female urethra is relatively common, and consequently calibration of this organ should be a part of the urological examination of every woman and child complaining of symptoms referable to the genito-urinary tract.

Strictures of the female urethra respond readily to proper treatment, and their early detection will prevent pathological lesions of the upper urinary tract secondary to this condition.

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PRE-ATAXIC GASTRIC CRISES OF TABES *

By CLYDE FISHBAUGH, A. M., M. D., Los Angeles, Cal.

Because of the frequent mistakes in diagnoses and numerous unnecessary operations on patients with pre-ataxic gastric crises, it seems opportune to present this subject at this time. Neurologists are alive to the frequency of this condition and, doubtlessly, fail to recognize very few cases, but physicians and surgeons have all found early stomach crises an easy pitfall.

Nuzum,[1] in a review of one thousand patients at the Cook County Hospital, Chicago, noted that visceral crises of tabes was observed in 22 per cent of the cases. Of the 22 per cent, 19 per cent were of the gastric type, 2 per cent renal, and 1 per cent intestinal. Erb[2] found visceral crises ten times in 400 cases, and Fournier,[3] fifteen times in 210 cases.

In reports of these large groups of cases, the pre-ataxic have not been differentiated from the ataxic form. It is the purpose of this communication to consider only that form of gastric crises noted in pre-ataxic patients. The diagnosis is easy in ataxic patients, as other features of tabes are in evidence. The frequency of incorrect diagnosis of gastric crises in all stages of tabes is emphasized by Nuzum,[1] who observed that 87 per cent of the 220 patients had been operated upon unnecessarily. Of this number, eighteen were operated upon for gastric ulcer, sixteen for gall stones or cholecystitis, seventeen for appendicitis, eleven for prostatitis, six for renal colic, five for post-operative adhesions, one each for cauda equina, meningocele, ectopic gestation, peritonitis, and nine operations were exploratory.

The following cases illustrate the great diversity of symptoms, findings and diagnoses encountered in the study of this manifestation of spinal syphilis.

Case No. 1.—An actor, 38 years old, complaining of stomach trouble. About fifteen years ago the patient began to have very severe, dull, heavy pain in the abdomen. Pain would come on during

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